

Claims

1. An input device comprising:

a button;

a case operable to guide the button for allowing the button to

5 slide;

a switch fixed to the case and activated with the button;

a motor fixed to the case;

a driving member fixed to one of the button and the motor;

10 a coil spring fixed to other of the button and the motor, the coil spring being operable to be engaged with the driving member, the coil spring being operable to be rotated to move relatively to the driving member.

2. The input device according to claim 1,

wherein the driving member has a helical part having a recess

15 formed spirally, and

wherein the coil spring is operable to be engaged with the helical part and be wound around the helical part.

3. The input device according to claim 2, wherein the coil spring has a

20 portion having a pitch different from a pitch of another portion of the coil spring.

4. The input device according to claim 2, wherein the helical part of the driving member has a portion having a pitch different from a pitch of

25 another portion of the helical part.

5. The input device according to claim 2, wherein the coil spring has a

low-friction surface.

6. The input device according to claim 2, wherein the helical part has a low-friction surface.

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7. The input device according to claim 2, wherein the helical part of the driving member is tapered at a tip of of the helical part.

8. The input device according to claim 1, further comprising an encoder
10 detecting a rotation of the motor.

9. The input device according to claim 1, wherein the motor comprises a stepping motor.

15 10. The input device according to claim 1, further comprising a sensor for detecting a movement of the button.

11. The input device according to claim 1, further comprising a spring applying a force to urge the button.